

REMARKS

This paper is responsive to the paper(s) indicated above, and is responsive in any other manner indicated below.

PENDING CLAIMS

Claims 1-29 were pending in the application at the time of the Office Action. Claim 27 has been amended in order to adjust a clarity and/or focus of such claim. That is, such changes are unrelated to any prior art or scope adjustment and are simply refocused claims in which Applicant is presently interested.. At entry of this paper, Claims 1-29 pending for further consideration and examination in the application.

CLAIM OBJECTION OBIATED VIA CLAIM AMENDMENT

Claim 27 has been objected to because of the minor Office Action concern listed within the "Claim Objection" section on page 2 of the Office Action. As amendments have been made where appropriate in order to address each of the Office Action listed concern, reconsideration and withdrawal of the claim objection are respectfully requested.

ALLOWED CLAIMS

Claims 18-29 have been allowed in the application, as indicated within the section number "8" on page 4 of the Office Action. Applicant and the undersigned respectfully thank the Examiner for such indication of allowable subject matter.

NON-REWRITTEN ALLOWABLE CLAIMS

Although claims 2, 4, 7-9 and 11-17 have been indicated as being allowable if rewritten, as indicated within the section number "5" on page 4 of the Office Action, rewriting has not yet been effected as it is believed that any base and intervening claims will be allowed responsive to this paper. (It is respectfully noted that claim 10 appears to have been erroneously listed within section numbered "5", as claim 10 was rejected elsewhere in the Office Action based upon a prior art rejection.) Applicant respectfully reserves the right to rewrite the potentially allowable claims at a later time if necessary, and Applicant and the undersigned respectfully thank the Examiner for such indication of potentially allowable subject matter.

REJECTION UNDER 35 USC '103

It is respectfully noted that there is somewhat confusing information within the Office Action concerning the '103 rejections. More particularly, page 2 of the Office action states that ones of Applicant's claims are unpatentable over "US 6,414,734 (Date et al.)". Confusion exists because "US 6,414,734" is issued to "Shigeta et al.", while "Date et al." has the patent number of "US 6,229,586 B1." From the detailed Office Action comments associated with the rejection, it is assumed the claims are rejected as being unpatentable over "US 6,229,586 B1 (Date et al.)". Owing to the confusion, it is respectfully submitted that it would not be proper to make a next Office Action final.

All 35 USC '103 rejections (i.e., the 35 USC '103 rejection of claims 1, 3 and 6 as being unpatentable over Date et al. (US 6,229,586 B1); and the 35 USC '103

rejection of claims 5 and 10 as being unpatentable over Date et al. further in view of Sasaki et al. (US 6,219,120 B1)) are respectfully traversed.

All descriptions of Applicant's disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated hereat by reference. Further, all Office Action statements regarding the prior art rejections are respectfully traversed. As additional arguments, Applicant respectfully submits the following.

An important object of Applicant's disclosed and claimed invention is to provide reflection-type liquid crystal arrangements (e.g., devices, methods, etc.) having an internal light reflector layer, which can be produced in a simple low-cost manner. In order to accomplish the same, Applicant's disclosed and claimed invention includes the arrangement of a light reflector section including a polymeric medium layer with fine silver particles precipitated on the surface, where the fine silver particles are used to reflect light. All of Applicant's rejected claims contain equivalent features/limitations to the above.

To provide enablement to such invention, Applicant's disclosure teaches an example preparation (e.g., example chemical formulation) beginning on page 8, line 18, and Applicant further teaches example heating and baking steps. The end result of Applicant's polymeric layer with fine silver particle precipitated on the surface is unique and novel to Applicant's invention.

Turning now to rebuttal of the primary reference, Date et al. (US 6,229,586 B1) relates to a reflection type liquid display device which itself includes a metallic reflection film 33 (FIG. 2). However, Date et al.'s reflection film

33, and its surrounding organic film 32 and flattening film 34, are totally different from Applicant's disclosed and claimed invention. First, Date et al.'s disclosure never mentions silver for use as a metallic reflection material, and certainly never mentions using silver particles to achieve a metallic reflection material. (It is respectfully noted that the secondary Sasaki et al. reference (which appears to be related to the Date et al. reference as shown by partial overlapping disclosure, drawings, and common assignee) discloses that aluminum is used as a metallic reflection material, but again, use of neither silver nor aluminum particles is ever mentioned.)

Second, Date et al. teaches pre-formation of the organic film 32, and then subsequent evaporation of the metallic reflection film 33 onto the film 32. Such is typically done using electron beam vapor deposition (e.g., see related Sasaki et al.'s column 12, lines 53-55). Accordingly, Date et al.'s evaporation would not result in particles, but instead would result in a solid metallic film.

Third, Date et al.'s organic film 32 and flattening film 34 surrounding Date et al.'s metallic reflection film 33 are not polymeric medium layers. More particularly, Date et al.'s organic film 32 is explicitly taught as being a photosensitive resin layer such as an acrylic base resist or polystyrene base resist (Date et al.'s column 5, lines 8-10) and flattening film 34 is explicitly taught as being an acrylic base resin (Date et al.'s column 4, lines 13-14).

The secondary Sasaki et al. reference does not cure the major deficiencies mention above with respect to the primary Date et al. reference.

It is well settled under U.S. patent law that in order properly to support a '103 obviousness-type rejection, the applied reference(s) (i.e., without the teachings supplied by Applicant's disclosure) must themselves provide suggestion or incentive

to combine the same in a manner to arrive at the subject matter of the rejected claim(s). Given that neither of the cited references mentions silver, or more importantly, silver particles, and given that neither mentions a polymeric layer which itself includes a metallic reflection layer, it is respectfully submitted that no such suggestion or incentive is provided by the applied references (taken singly or in combination) to arrive at Applicant's disclosed or claimed invention.

In addition to the foregoing, the following additional remarks from Applicant's foreign representative are also submitted in support of traversal of the rejection and patentability of Applicant's claims.

The Examiner has stated that Date et al. shows the polyimide orientation film (36) as a polymeric medium layer and the reflection film (33) made of silver. However, the reflection film (33) is not formed on the surface of the polyimide orientation film (36). The reflection film (33) is formed separately from the polyimide orientation film (36). Further, as stated by the Examiner, Date et al. does not disclose that the polymeric medium layer includes fine silver particles as the reflector section. The polyimide orientation film (36) as a polymeric medium layer does not include fine silver particles. Accordingly, even if the polyimide orientation film (36) is baked, the fine silver particles are not precipitated on the surface of the polymeric medium layer (36) to form the reflection film (33). In Date et al., the reflection film (33) is formed on the organic film (32) by a separate process before a process of forming the polyimide orientation film (the polymeric medium layer) (36).

According to Applicant's invention, the reflector section is formed by the polymeric medium including the fine silver particles, and the fine silver particles are ultimately precipitated on the surface of Applicant's polymeric medium layer (8) by a

baking process applied to the polymeric medium layer (8) at a certain temperature. Accordingly, the structure of Applicant's reflection section is very different from that of Date et al. As an advantage, Applicant's reflection section is more easily made in comparison with Date et al.'s invention.

As a result of all of the foregoing, it is respectfully submitted that the applied art (taken alone and in the Office Action combinations) would not support a '103 obviousness-type rejection of Applicant's claims. Accordingly, reconsideration and withdrawal of such '103 rejection, and express written allowance of all of the '103 rejected claims, are respectfully requested. Further, at this point, it is respectfully submitted as a reminder that, if new art is now cited against any of Applicant's unamended claims, then it would not be proper to make a next action final.

EXAMINER INVITED TO TELEPHONE

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner's Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

INDICATION OF CHANGES MADE

In order to comply with requirements under the recent changes to U.S. practice, amendments are made via the attached "Appendix - Version With Markings To Show Changes Made".

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (500.37406X00) and please credit any excess fees to such deposit account.

Respectfully submitted,



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Attachment:

Appendix - Version With Markings To Show Changes Made

Filed concurrently:

Petition for Extension of Time
Form PTO-2038

APPENDIX - VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend the claims as follows. Note that the full text and/or status of all claims (including those not being amended within this paper) may also be included to provide the convenience of a complete set of claims for easy review:

27. (Amended) A process according to Claim 24, which further comprises a step of forming a wiring layer for actuating the electrode on the substrate, and a step ~~step~~ of forming an electro-conductive path for giving an electrical connection between the wiring layer and the electrode through the light reflector layer.